

AMENDMENTS TO CLAIMS

1. (Currently Amended) A method for producing an intaglio printing plate having a flat top surface with at least one depression in the form of a line brought into the surface of the intaglio printing plate and arranged to be filled with printing ink during intaglio printing, comprising the steps of:

providing a two-dimensional line original;

defining from the two-dimensional line original a line to be brought into the surface of the intaglio printing plate, said line defining a limited partial area of the surface, an edge of the limited partial area defining a desired contour;

associating a depth profile within the desired contour;

calculating track data with aid of a computer program for controlling movement of an engraving tool along a tool track to be followed by the engraving tool within the desired contour based on the desired contour and ~~a the predetermined desired depth profile of the at least one depression;~~ and

controlling the movement of the engraving tool along said tool track according to said track data such that a material ~~of said limited partial area~~ the surface of the intaglio printing plate is removed within the desired contour ~~at~~ along the predetermined desired depth profile to form said at least one depression, said tool track being continuous ~~to form said at least one depression.~~

2. (Original) The method of claim 1, characterized in that at least part of the tool track extends contour-parallel to the desired contour.

3. (Canceled)

4. (Original) The method claim 1, characterized in that the desired depth is variable within the tool track.

5. (Original) The method of claim 1, characterized in that the desired depth is constant within the tool track.

6. (Previously Presented) The method of claim 1, characterized in that the material is removed along the tool track within the desired contour by a single working traverse of the engraving tool.

7. (Original) The method of claim 1, characterized in that an unengraved residual area located within the partial area is removed along a second tool track.

8. (Previously Presented) The method of claim 7, characterized in that the residual area is removed by controlling the engraving tool such that said tool removes a surface of the residual area in tracks which are similar or contour-parallel to the desired contour.

9. (Previously Presented) The method of claim 7, characterized in that the residual area is removed by controlling the engraving tool such that a surface of the residual area is removed in a meander shape.

10. (Previously Presented) The method of claim 7, characterized in that the unengraved residual area is removed such that a new surface of defined roughness arises at a base of an engraving resulting from removal of the unengraved residual area.

11. (Original) The method of claim 10, characterized in that the engraving tool is controlled such that the roughness is executed in the form of grooves.

12. (Previously Presented) The method of claim 1, characterized in that at least part of the partial area from which material is removed at a predetermined depth is deepened further in at least one further engraving step.

Serial Number 09/147,398

13. (Previously Presented) The method of claim 12, characterized in that the at least one further engraving step produces humanly recognizable or machine-readable information.

14. (Original) The method of claim 1, characterized in that the desired contour is defined with the aid of a data processing system.

15. (Original) The method of claim 1, characterized in that the engraving tool is a laser beam.

16. (Original) The method of claim 1, characterized in that the engraving tool is a mechanical chisel.

17. (Original) The method of claim 16, characterized in that the mechanical chisel rotates during engraving.

18. (Previously Presented) The method of claim 1, characterized in that characterized in that engraving tools of different kinds or dimensions are used for producing the intaglio printing plate.

19. (Canceled)

20. (Previously Presented) The method of claim 1, characterized in that said plate is engraved with multiple engraving tools simultaneously.

21. (Previously Presented) The method of claim 12, characterized in that the at least one further engraving step is executed with a finer engraving tool than the engraving tool used to remove said partial area within the desired contour.

22. (Original) The method of claim 21, characterized in that the at least one further engraving step is performed in a flank sloping from the desired contour.

Serial Number 09/147,398

23. (Canceled)

24. (Previously Presented) An intaglio printing plate having a surface with at least one engraved depression in the form of a line, said at least one depression being arranged to be filled with printing ink during intaglio printing, said at least one depression having flanks, a bottom, and an engraved defined roughness structure at a bottom of the at least one depression, wherein said defined roughness structure has a predetermined meander-shape or extends at least in partial areas in a predetermined direction parallel to a direction of said at least one line.

25. (Canceled)

26. (Canceled)

27. (Canceled)

28. (Previously Presented) The embossing or intaglio printing plate of claim 24, characterized in that the at least one depression further comprises micro-engraving that represents information.

29. (Previously Presented) The embossing or printing plate of claim 28, characterized in that the micro-engraving is incorporated in the form of characters, pictures, or patterns.

30. (Previously Presented) The embossing or intaglio printing plate of claim 24, characterized in that the defined roughness structure represents machine readable information.

31. (Previously Presented) The embossing or intaglio printing plate of claim 24, characterized in that the defined roughness structure is executed in the form of grooves.

32. (Previously Presented) The embossing or intaglio printing plate of claim 24, characterized in that the defined roughness structure is brought in with the aid of a laser beam.

Serial Number 09/147,398

33. (Previously Presented) The embossing or intaglio printing plate of claim 24, characterized in that the defined roughness structure is brought in with a mechanical chisel.

34. (Canceled)

35. (Canceled)

36. (Previously Presented) The method of claim 1, characterized in that the intaglio printing plate is a steel intaglio printing plate.

37. (Previously Presented) The method of claim 1, further comprising taking into account the width of said tool before forming said desired contour.

38. (Canceled)

39. (Canceled)

40. (Previously Presented) The method of claim 1, further comprising forming a second depression to define a second desired contour and a second limited partial area in said limited partial area; moving the engraving tool along a second tool track in said second limited partial area at a second penetration depth; and taking into account the width of said tool before forming said desired contour and said second desired contour.

41. (Canceled)

42. (Currently Amended) The embossing or intaglio printing plate of claim 28, characterized in that said ~~additional~~ information extends over multiple depressions.

43. (Canceled)

44. (Currently Amended) The method of claim 1, further comprising the forming of a second depression to define a second desired contour and a second limited partial area in said limited partial area, said tool track in said second limited partial area ~~is being~~ at a second penetration depth.

45. (Previously Presented) A method for producing an intaglio printing plate having a flat top surface with at least one depression in the form of a line brought into the surface of the intaglio printing plate and arranged to be filled with printing ink during intaglio printing, comprising the steps of defining a limited partial area of the surface, an edge of the limited partial area defining a desired contour; calculating track data with aid of a computer program for controlling movement of the engraving tool along a tool track to be followed by the engraving tool within the desired contour based on the desired contour and a predetermined desired depth of the at least one depression; controlling the movement of the engraving tool along said tool track according to said track data such that a material of said partial area is removed within the desired contour at the predetermined desired depth to form said at least one depression, said tool track being continuous and extending along the desired contour; and removing an unengraved residual area located within the partial area along a second tool track.